

## ABSTRACT

A system comprises control logic and a programming interface. The programming interface is configured to permit a user to specify a plurality of weighting points in a multi-dimensional coordinate space. The control logic  
5 includes spline computation logic configured to generate a spline curve based on boundary conditions. The spline curve extends near the weighting points. The control logic is configured to generate control signals to control operation of a plurality of motion axes to drive movement of a controlled element along a path defined by the spline curve.